

# ULTRA-FAST ADDER

Honkai Tam

5

## ABSTRACT

10 A carry look-ahead adder capable of adding or subtracting  
two input signals includes first stage logic having a  
plurality of carry-create and carry-transmit logic circuits  
each coupled to receive one or more bits of each input signal.  
Each carry-create circuit generates a novel carry-create  
signal in response to corresponding first bit-pairings of the  
input signals, and each carry-transmit circuit generates a  
15 novel carry-transmit signal in response to corresponding  
second bit-pairings of the input signals. The carry-create and  
carry-transmit signals are combined in carry look-ahead logic  
to generate accumulated carry-create signals, which are then  
used to select final sum bits.

2015-04-04 10:00:00